

THE ADVISOR

A Publication of the Rocky Flats Citizens Advisory Board

Summer/Fall 1996

DOE Aims for Ten Year Cleanup

Earlier this summer, Rocky Flats and the rest of the Department of Energy's (DOE) nuclear weapons complex sites received orders from their Headquarters office in Washington, D.C. to develop a Ten Year Plan for site closure. Unlike most of the other sites, Rocky Flats has already been working on an accelerated cleanup plan for nearly a year. This Headquarters directive was largely based on the strong support of the Assistant Secretary for Environmental Management (EM) for recent Rocky Flats accelerated cleanup plans.

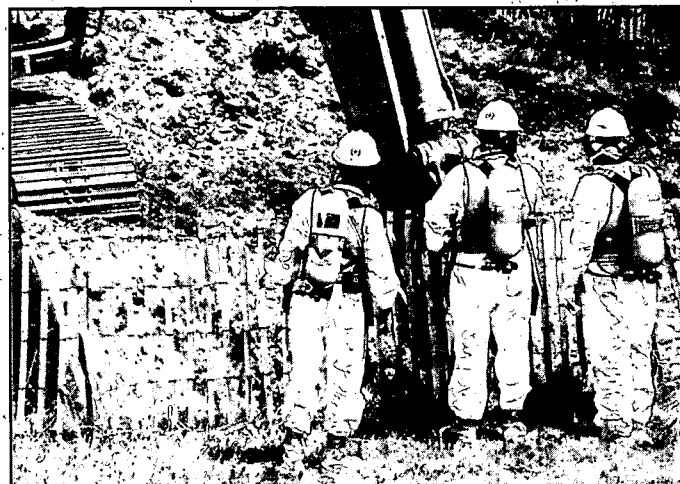
EM-Assistant Secretary Al Alm provided the sites with a set of seven principles to guide their ten year planning efforts:

- Eliminate the most urgent risks;
- Reduce the mortgage and support costs to free up funds for further risk reduction;
- Protect worker health and safety;
- Reduce the generation of waste;
- Create a collaborative relationship between DOE and its regulators and stakeholders;
- Focus technology development on cost and risk reduction;
- Integrate waste treatment and disposal across sites.

Rocky Flats has a head start on this process because of its Accelerated Site Action Project (ASAP). For the past several months, Rocky Flats has been analyzing the costs, risks and schedules associated with various accelerated cleanup scenarios. The site was able to use much of this data in developing the first draft of the Ten Year Plan.

Rocky Flats is basing its Ten Year Plan on several assumptions. One assumption is that a new vault will be built for interim plutonium storage. Another assumption is accelerated shipment of transuranic waste to the Waste Isolation Pilot Plant (WIPP) in New Mexico. The opening of WIPP has been delayed and it is currently awaiting federal approval in 1998. The Ten Year Plan also assumes the ability to accelerate shipment of low-level and low-

(continued on Page 3)



Workers begin excavation of Trench T-3 in June, 1996.

Digging Up the Past

In June of this year, Rocky Flats began excavation and remediation of two waste disposal trenches, T-3 and T-4. These trenches are two of the highest priority contaminated sites (IHSSs, or Individual Hazardous Substance Sites) at Rocky Flats. In the mid-1960s, various chemicals were buried in these trenches. The primary contamination in the trenches comes from volatile organic compounds (VOCs), such as trichloroethene (TCE), tetrachloroethene (PCE) and carbon tetrachloride. VOC contamination in the groundwater in this area has been detected, making removal of this source material a high priority.

Trench T-3 is approximately 20 x 134 feet and 10 feet deep and T-4 is slightly smaller. Excavation of trench T-3 began on June 4 and occurred every other day for about one month. Trench T-4 excavation began next and was completed in late July. The total amount of excavated soil is estimated to be approximately 2,700 cubic yards, or enough to fill 150 18-wheel trucks (if lined up, 150 18-wheelers would stretch about 1.7 miles). Not all of the contents of the

(continued on Page 7)

Highlights Inside:

Rocky Flats Updates Page:	2
RFCA, Site Wide EIS, Rocky Flats Budget, and CAB staff changes	
NCPP Progress Report	4

Northern N.M. Citizens Advisory Board	6
CAB World Wide Web Page Address	7
CAB Public Comment Message Line	7
Public Meeting Calendar	8

Rocky Flats Updates



Rocky Flats Cleanup Agreement

After nearly three years of negotiations, representatives from the Department of Energy, the Environmental Protection Agency, the Colorado Department of Public Health and Environment and the Governor's Office officially signed the new Rocky Flats Cleanup Agreement on July 19. This document provides the regulatory framework by which Rocky Flats cleanup decisions will be made. At the same time, the officials also signed the Rocky Flats Vision. This two-page document describes the overall, long-term cleanup goals for the site.

The Rocky Flats Citizens Advisory Board and many other citizens and groups provided a great deal of input into the development of both documents. The agencies responded with a 140-page Response to Public Comments document that addresses each of the comments.

Two major issues were not resolved in the final Cleanup Agreement. One is the Soil Action Levels which will determine cleanup levels. An agency working group has recently developed a draft action levels document which is currently out for public comment. The other unresolved issue is low-level and low-level mixed waste storage and disposal. RFCA leaves all options open. There will be public processes to address both of these issues in the coming months. Stay in contact with the CAB to keep up-to-date on the progress of these efforts.

Site Wide Environmental Impact Statement

The Department of Energy has been working with a contractor for more than two years to prepare a Site Wide Environmental Impact Statement (SWEIS) for Rocky Flats. The SWEIS is to examine the potential environmental effects of the change in site mission from production to cleanup and was expected to be complete by the end of the year. Because the scoping for the SWEIS was done two years ago, the cleanup alternatives that are analyzed in the document do not match the current accelerated cleanup plans. Therefore, DOE has decided to delay completion of the SWEIS until the Ten Year Plan has been completed. The Ten Year Plan cleanup scenario will then be analyzed as the preferred alternative in the SWEIS.

The scope of the SWEIS may be reconsidered based upon the other NEPA documents that DOE is preparing for various site activities, such as the EIS for the construction of a new plutonium storage vault and a programmatic EIS for residue treatment, storage and perhaps disposal. Also, because DOE believes environmental restoration decisions are covered under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), these decisions will not be a part of the SWEIS. Only waste and possibly decommissioning activities may be left within the scope of the document. However, DOE still commits to analyzing the cumulative impacts of all site activities as part of this document. DOE is anticipating a Record of Decision in the fall of 1997.

Rocky Flats Budget

Rocky Flats' Fiscal Year (FY) 1997 budget request is currently making its way through Congress as part of the overall Department of Energy request. Rocky Flats' share stands at about \$597 million, but we will not know the final

amount until a House/Senate conference committee agrees on a final spending package.

The FY98 budget was presented to DOE Headquarters in April. During the summer, Rocky Flats was notified that it will receive an additional \$60 million on top of the \$596 million Headquarters had originally approved for the site. This extra funding will be used for decontamination, decommissioning and expedited waste shipments. These numbers are subject to change, however, as the budget proceeds through the approval process.

Changes on CAB Staff

On July 1, Ken Korkia took over as the Board/Staff Coordinator for CAB. Ken has worked for the Board since June 1994 in the capacity of Program Specialist. Ken's new role will be to oversee the staff and provide overall coordination for the Board and its committees.



Beginning in the December issue of *The Advisor*, we will be adding a "Q & A" column. As a service to our readers, we will be answering your questions about Rocky Flats. Please send, call, fax or e-mail your questions to us by October 15 and we will try to answer them in our next issue.

Rocky Flats CAB
9035 Wadsworth, Suite 2250
Westminster, CO 80021
(303) 420-7855
fax: (303) 420-7579
e-mail: rfcab@indra.com

Ten Year Plan (continued from Page 1)

level mixed wastes to offsite disposal locations. The low-level waste that cannot be shipped offsite will be stored onsite in containers in buildings. While final soil cleanup standards are currently being developed, the site is assuming use of an 85 millirem radiation exposure action level for its planning purposes. The actual standard will have a significant effect on the amount of waste that is produced as well as the schedule for the cleanup actions.

Rocky Flats' Ten Year Plan assumes \$10 million will be available each year for environmental restoration projects. It also includes plans to demolish and excavate the foundations of all buildings, except those suitable for private uses. Finally, the plan assumes a constant total site budget of \$657 million (FY97 dollars) each year.

Rocky Flats submitted a draft of this plan to Headquarters on July 31. The Department of Energy is expecting to complete

the Ten Year Plan for the weapons complex later this year. The public is being asked to get involved in this effort. Regardless of the assumptions mentioned above, several key decisions have yet to be made. Most important may be the soil-action levels and the low-level waste strategy. According to the Department of Energy, the Ten Year Plan will guide the implementation of all other site plans, including the Rocky Flats Cleanup Agreement, the Accelerated Site Action Project and the Site Wide Environmental Impact Statement. There are many opportunities to get involved in the public discussions on these issues starting now. Please contact Erin or Ken at the CAB office at (303) 420-7855 if you would like to get involved in reviewing and commenting on the Ten Year Plan. Also, copies of the draft document are available from the DOE Communications office by calling (303) 966-5993.

Looking Ahead: Rocky Flats Under the Proposed Ten Year Plan

Before:

After:

6.6 tons of Plutonium (Pu) metal and 3.2 tons of Pu oxides	→	Stabilized/packaged/awaiting offsite shipment in a new storage vault
3.1 tons Pu in 106 tons of residue	→	Stabilized/packaged/shipped to WIPP
7300 cubic meters of TRU waste	→	Packaged/shipped to WIPP
6.7 tons of Uranium	→	Packaged/shipped offsite
Low-level and low-level mixed waste (soil, process, legacy, demolition)	→	Shipped offsite and/or stored onsite in containers in a building
Over 500 facilities	→	6 buildings left (Pu vault / LLW/MW building, / some administrative and utilities); the rest deactivated and demolished / possibly some left for private use
Hazardous and sanitary wastes	→	Shipped offsite
Clean demolition debris	→	Used as fill
6100 acres (mostly buffer zone)	→	Cleaned to open space use standards
100 acres (current industrial area)	→	Cleaned to industrial use standards

Legend:

Pu = Plutonium

TRU = Transuranic waste

WIPP = Waste Isolation Pilot Plant (located outside of Carlsbad, New Mexico)

NCPP Makes Progress Toward at Rocky

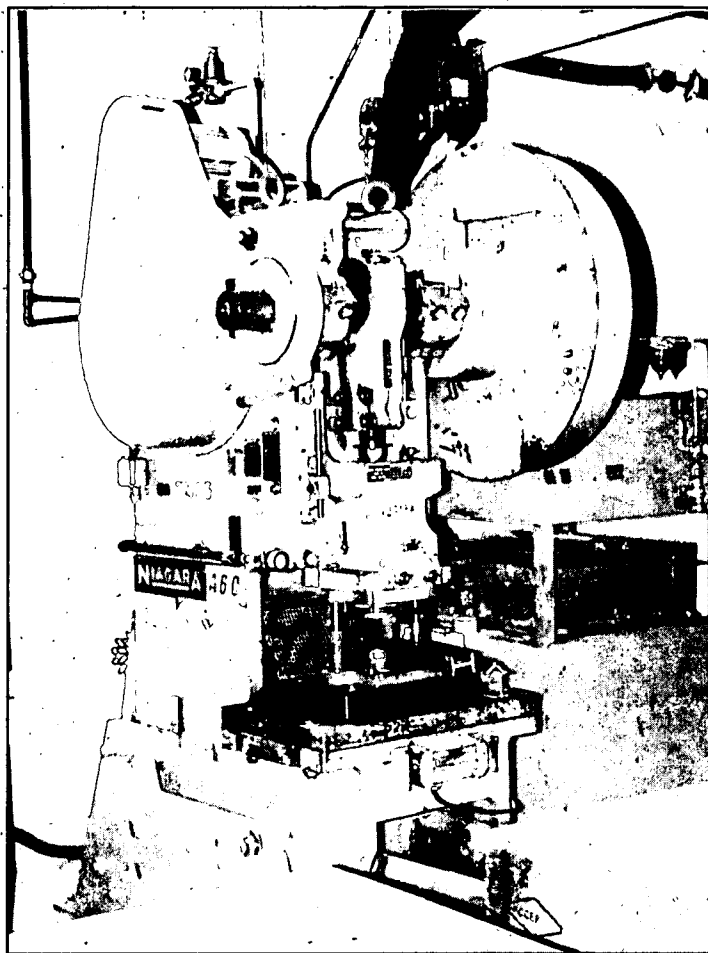
For the past two years, work has been ongoing at Rocky Flats to decontaminate and decommission two of the former weapons production buildings, 883 and 865. These two buildings, along with buildings 444 and 447, constitute the National Conversion Pilot Project (NCPP). The NCPP receives its money from the Department of Energy (DOE). The goal of NCPP is to make former weapons production facilities available for non-weapons production activities. The four buildings involved in NCPP at Rocky Flats are metal machining and fabrication facilities. Materials utilized in these buildings included uranium, beryllium and stainless steel. There were no plutonium operations in any of the NCPP buildings.

There are three stages associated with the NCPP. Stage I, planning, was complete by the spring of 1994. Stage II, the actual cleanup work, began in April of 1994. Cleanup in the first building, 883, should be done by this fall. Building 865 should be available for reuse by next spring. These two buildings at one time were used for fabrication of uranium and beryllium weapons parts. Contained within these buildings are large pieces of machinery such as furnaces, hydraulic presses and large rolling mills. The other two buildings, 444 and 447, will be cleaned up over the next two years. Stage III, the new manufacturing activities, will likely begin sometime in 1997 for the first two buildings.

The original NCPP target was for cleanup in all four buildings to be complete within two years, at a projected cost of \$42 million. Because of funding cutbacks from the Department of Energy, NCPP was able to concentrate on only two of the four buildings, 883 and 865. Based on experience so far in the first two buildings, NCPP officials now estimate that the total cleanup cost for all four buildings can be lowered to \$28 million.

The company responsible for the decontamination and decommissioning work in the four buildings is Manufacturing Sciences Corporation (MSC), headquartered in Oak Ridge, Tennessee. MSC is a major metal recycling operation that focuses on recycling materials from former weapons complex facilities. The company hopes to expand its current capacity by winning the competition to be the Stage III NCPP contractor. One of the founders and the current vice president for MSC is Dennis Floyd, a former Rocky Flats worker. Dennis heads up the MSC operations at Rocky Flats.

Later this year, the Rocky Flats Local Impacts Initiative (RFLII) will issue a request for proposals from any companies interested in leasing the four NCPP buildings at Rocky Flats for reuse. RFLII is the local community reuse organization sponsored by the Department of Energy to help plan and facilitate the reuse or conversion of the Rocky Flats site. After the proposals are made, DOE and RFLII will solicit input from the



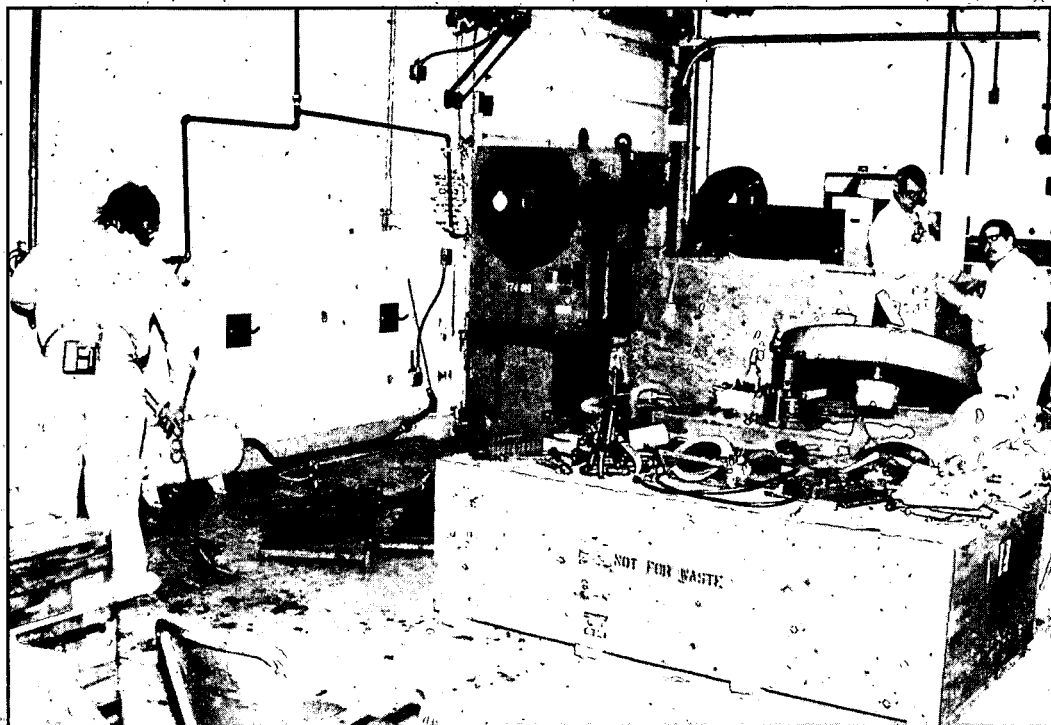
Pictured above is a Niagara metal press in Rocky Flats Building 883, formerly used to produce weapons parts.

community at large to help select the winning proposal. The company selected will then lease the facilities from the Department of Energy. Current plans call for the selected company, in cooperation with DOE, to prepare an Environmental Assessment before manufacturing gets underway.

One of the major goals of NCPP is to create new jobs to replace those lost with the end of weapons production. Seventy three workers are involved in the cleanup of Buildings 883 and 865. Eighty eight percent of these workers are former Rocky Flats site employees who lost their jobs due to downsizing. Around 200 additional workers could be added for the manufacturing operations.

MSC has been effective in cleanup operations. For instance, MSC divided the cleanup workers into teams. Although each team has a leader, decisions are jointly made by

Cleanup and Re-use of Facilities Flats



This is the same press after it was disassembled and decontaminated by MSC workers as part of the NCPP project. This particular piece of machinery is no longer needed and its various parts will be recycled.

all the members. MSC employees stressed that their success is due to the team approach. Work has proceeded in a very safe manner, with only one minor worker contamination incident reported. Finally, by focusing on waste minimization, MSC greatly reduced the amount of waste generated during the cleanup operations from the original projections.

Earlier this year, a team of reviewers from throughout the weapons complex visited Rocky Flats to conduct an analysis of potential health and safety problems resulting from operations in facilities that are still, or were at one time, involved in the handling of highly enriched uranium. Building 883 is one of these facilities and after the review the final report stated: "The manner in which the uranium decontamination and decommissioning activities are being managed and overseen in Building 883 should be used to model other D&D activities at Rocky Flats and at other DOE sites."

Once MSC finishes the decontamination and decommissioning work, the Department of Energy will hire an outside firm to provide independent verification that any remaining level of contamination meets relevant health standards. Only after this verification is complete will DOE allow a company to begin manufacturing operations.

When NCPP was first conceived, the intent was for MSC to

do the cleanup work and then begin its manufacturing activities. A later decision by DOE and the regulators, with support of the community, was that a competitive bidding process would be utilized to select the Stage III contractor. MSC still expresses a strong desire to be that Stage III contractor. In its plans for reuse of the NCPP buildings, MSC proposes to recycle scrap materials, such as stainless and carbon steel, and fabricate them into waste containers.

Most of the feed materials will come from DOE facilities across the country. MSC estimates that up to 30,000 tons of material could be recycled from Rocky Flats alone. The estimate for recyclable materials across the weapons complex is anywhere from 300,000 to three million tons.

All materials would be sent first to the MSC facility in Tennessee for decontamination. They would melt down the metals in large furnaces to form ingots. MSC would then transport the ingots to Rocky Flats to complete the manufacturing operations.

At Rocky Flats, MSC would fabricate waste barrels, large cargo containers, plutonium metal and oxide storage canisters, and plutonium residue storage and shipping containers. These products would be used primarily by the Department of Energy to store and dispose of materials from Rocky Flats and other sites. MSC stresses that its proposal would make maximum use of recycling. They would recycle former production facilities, former Rocky Flats workers and materials.

For anyone interested in further information, MSC has prepared a 30-minute video describing its operation. A copy of the video is available for review in the CAB office. Tours of the MSC facilities at Rocky Flats are available. To seek more information or to arrange a tour, please contact Tim Heaton with MSC at 966-9680 or 237-8576. If you are interested in how the decision will be made to select the Stage III contractor, please contact the Rocky Flats Local Impacts Initiative at 940-6090.

Site-Specific Advisory Boards A R O U N D THE DOE WEAPONS COMPLEX

This Issue: Northern New Mexico Citizens Advisory Board

The Rocky Flats Citizens Advisory Board is one of several Site-Specific Advisory Boards (SSABs) that have been formed at former nuclear weapons production sites. In each issue of The Advisor, we spotlight the activities of one of these boards.



Los Alamos National Laboratory, located on the Pajarito Plateau of northern New Mexico.

Last September, the Northern New Mexico Citizens Advisory Board (CAB) to the Department of Energy/Los Alamos National Laboratory was created. A diverse group of 17 individuals currently serve on the Board. Three Native American pueblo communities, San Ildefonso Pueblo, Picuris Pueblo and San Juan Pueblo, immediately surround Los Alamos National Laboratory and are profoundly affected by activities at the site. A representative from each community serves on the Board.

During the first nine months of operation, the Northern New Mexico CAB spent most of its time on developmental issues such as its structure and organization. The Board also made four recommendations regarding prioritization of projects, separation of waste management and environmental restoration budgets, work place safety, and transfer of plutonium manufacture from Rocky Flats to Los Alamos.

Los Alamos National Laboratory (LANL) was established in 1943 as Project Y of the Manhattan Engineering District, the secret World War II effort to develop the world's first nuclear

weapons. J. Robert Oppenheimer headed the group of scientists who performed the research, developed the technology and produced the actual bombs. Oppenheimer and his colleagues completed their mission in 27 months, culminating in the Trinity test on July 16, 1945, which signaled the dawn of the atomic age.

The original mission of Los Alamos to design, develop and test nuclear weapons has expanded to include conventional weapons, as well as programs such as energy, nuclear safeguards, environmental protection and cleanup, and emerging technologies. In addition, LANL must safely and efficiently manage a substantial amount of solid radioactive waste (both low-level and TRU waste) located in pits, trenches and shafts, above and below ground, at the site.

Since its beginning, Los Alamos has been operated by the University of California. It is located about 35 miles northwest of Santa Fe and covers more than 43 square miles of mesas and canyons in northern New Mexico. It is the largest employer in the area, with more than 10,000 employees and an annual budget of approximately \$1 billion.

During its early stages, the Northern New Mexico Citizens Advisory Board established an Issues Committee to help prioritize the issues to be addressed by the Board. At that time, the Board agreed to form the following standing committees: Environmental Remediation/Waste Management; Science Education and Public Participation; Alternative Energy; and Economic Development. CAB also has an Executive Committee which deals with matters relating to the functions of the Board.

The Northern New Mexico CAB plans a retreat in September, at the completion of its first year of operation, when it will perform a self-evaluation and begin developing its work plan for 1997 through 1998. CAB will continue to study the issue of disposition of hazardous waste located at the site and to monitor the management of Los Alamos' safety operations and culture.

Trench Cleanup (continued from Page 1)

trenches are known, but the following are documented to have been disposed in these trenches:

- Sanitary sewer sludge contaminated with uranium and plutonium
- An unknown volume of liquid waste from Bldg. 444
- Plutonium-contaminated asphalt from a former outdoor chemical storage area
- An unknown number of crushed U-238-contaminated drums from use at oil burn pit
- An unknown volume of radiologically contaminated asphalt-impregnated felt from the Solar Ponds (may have been placed in the trench)

Although the historical record does not show that significant amounts of radioactive materials were disposed in the trenches, there are low levels of radionuclides present in the soil. As the soil was excavated, it was sampled and tested for radioactivity. The Department of Energy and its regulatory agencies have established temporary standards for the amount of radioactivity that will be allowed to be replaced into the trenches. Using these temporary standards, the regulators approved replacing the soil. Many stakeholders have expressed concern about returning radioactively contaminated soils to the trenches. Final standards will be approved this fall by these same agencies after

a formal public comment period. If the final levels are lower than the temporary levels used for the trenches project, DOE has committed to re-evaluating the situation and taking further action if necessary.

Excavated soils and drums are treated using a process known as thermal desorption. The materials are placed in pieces of equipment resembling ovens and heated to between 180° and 250° Fahrenheit for a minimum of 30 minutes. The heat transforms the liquid VOCs into gases, which are then transferred through filters to a condenser unit. The filters are designed to prevent radionuclides from passing through to the condensers. In the condenser, the gases are cooled to a liquid form. The liquids are then handled as hazardous waste while the soils are stockpiled awaiting sampling results and possible replacement in the trenches.

Various safety measures were employed during this excavation and treatment operation including dust suppression, air monitoring and personal protective equipment for workers including supplied breathing air.

The public will have an opportunity to comment on the proposed soil action levels between September 1 and October 4. Please call the CAB office at 420-7855 if you are interested in getting involved in this process.



CHECK OUT... CAB'S WORLD WIDE WEB PAGE

<http://www.indra.com/rfcab/>

(also e-mail address: rfcab@indra.com)

Visit us on the Internet to access CAB recommendations, Board meeting minutes, newsletter articles, Rocky Flats frequently-asked-questions and more!!!



And don't forget....

CAB'S Public Comment Message Line (303) 637-4808

Call 24 hours a day to record your opinions, comments, or suggestions.

All comments will be reviewed by the Board.

The Advisor is published quarterly by the Rocky Flats Citizens Advisory Board (CAB). The Executive Editor is Tom Marshall. Please send your questions, suggestions and ideas to:

Erin Rogers, Managing Editor
Rocky Flats Citizens Advisory Board
9035 Wadsworth Parkway, Suite 2250
Westminster, CO 80021
(303) 420-7855 Fax (303) 420-7579

Except as noted, all articles are written by CAB staff: Erin Rogers, Ken Korkia and Deb Thompson. To request a change of address, or to add or remove your name from the mailing list, contact Deb Thompson at the above address and phone number. Material may be reprinted if credit is given. CAB is funded under a 1996 grant of approximately \$391,000 sponsored by the U.S. Department of Energy.

CAB MISSION STATEMENT

The Rocky Flats Citizens Advisory Board, a nonpartisan, broadly representative, independent advisory board with concerns related to Rocky Flats activities, is dedicated to providing informed recommendations and advice to the agencies (Department of Energy, Colorado Department of Public Health and Environment and the Environmental Protection Agency), government entities and other interested parties on policy and technical issues and decisions related to cleanup, waste management and associated activities. The Board is dedicated to public involvement, awareness and education on Rocky Flats issues.

Rocky Flats Public Meeting Calendar

September

5	Rocky Flats Citizens Advisory Board Meeting	6 - 9:30 p.m.	Westminster City Hall
9	CAB Site Wide Issues Committee	6 - 9 p.m.	Westminster City Hall
16	CAB National Issues Committee	6:30 - 8:30 p.m.	CAB office
17	CAB Plutonium and SNM Committee	7 - 9 p.m.	Westminster City Hall
19	CAB Environmental/Waste Management Committee	7 - 9 p.m.	Westminster City Hall

October

3	Rocky Flats Citizens Advisory Board Meeting	6 - 9:30 p.m.	Doubletree Hotel
7	CAB Site Wide Issues Committee	7 - 9 p.m.	Westminster City Hall
15	CAB Plutonium and SNM Committee	7 - 9 p.m.	Westminster City Hall
17	CAB Environmental/Waste Management Committee	7 - 9 p.m.	Westminster City Hall
21	CAB National Issues Committee	6:30 - 8:30 p.m.	CAB office

November

7	Rocky Flats Citizens Advisory Board Meeting	6 - 9:30 p.m.	Westminster City Hall
11	CAB Site Wide Issues Committee	7 - 9 p.m.	Westminster City Hall
18	CAB National Issues Committee	6:30 - 8:30 p.m.	CAB office
19	CAB Plutonium and SNM Committee	7 - 9 p.m.	Westminster City Hall
21	CAB Environmental/Waste Management Committee	7 - 9 p.m.	Westminster City Hall

ALL MEETINGS ARE SUBJECT TO CHANGE, PLEASE CALL BEFORE YOU GO: (303) 420-7855

- CAB's Community Outreach and Health Committees meet on an ad-hoc basis, please call for schedule
- Rocky Flats' public meeting schedule has not yet been determined, please call for updated information

Westminster City Hall: 4800 W. 92nd Avenue, Westminster

Doubletree Hotel: 8773 Yates Drive (Highway 36 and Sheridan Boulevard), Westminster

CAB office: 9035 North Wadsworth Parkway, Suite 2250, Westminster

Rocky Flats Citizens Advisory Board

9035 Wadsworth Parkway, Suite 2250

Westminster, CO 80021

Forwarding and Return Postage Guaranteed;
Address Correction Requested.

NONPROFIT ORG.

U.S. POSTAGE

PAID

Broomfield, CO 80021

Permit No. 20

The Advisor is printed with
soy-based inks on 60% recycled paper
(30% post-consumer)



8/8